

Title (en)

PROCEDURE AND INSTALLATION FOR MEASURING A DISTANCE BY PROCESSING OF A PULSATING OPTICAL SIGNAL

Publication

EP 0312524 B1 19921216 (DE)

Application

EP 87901010 A 19870209

Priority

CH 8700017 W 19870209

Abstract (en)

[origin: WO8805922A1] The procedure for measuring the distance between an emitter-receiver and a target by means of pulsating optical signals uses a very low energy of pulsation but nevertheless possesses a sensitivity and immunity to disturbances superior to those of conventional methods. Groups of pulses are directed at the target at a rate of approximately 10 to 150 kHz. The series of signals emitted and reflected are scanned and digitized at a frequency depending on the emission pulse rate. The values obtained are then added cumulatively to the corresponding values for each emission pulse in synchronization with the scanning frequency. The information concerning the distance is derived from the signal so obtained. The signal received should preferably be scanned at a scanning frequency in the nanosecond range. The treatment of the signal may take place, for example, in a parallel adder (7). In this case, and for each signal emitted, the digitalized received signal is added cumulatively to the total in the adder. In particular, the output terminal of the adder (7) may be connected to a shift register (9) with an entry for the second summand. Alternatively, a microprocessor operating in the nanosecond range and incorporating the function of the parallel adder (7) relating to the emitted pulses may be provided.

IPC 1-7

G01S 17/10

IPC 8 full level

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CPC (source: EP)

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Cited by

DE102010013751A1; DE102013014192A1; DE4436447A1; DE102004032048A1; US5767794A; DE4413886C1; US5831551A; DE4422633A1; DE4422633C2; US5592157A; DE10351067A1; DE112004002646B4; DE102013014192B4; EP2711667A1; WO2005045464A1; US7995190B2; US7640122B2; US7895007B2; US7917320B2

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